Before the FCC 02-81
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Improving Public Safety Communications	)	WT Docket No. 02-55
in the 800 MHz Band	)	
	)	
Consolidating the 900 MHz Industrial/Land	)	
Transportation and Business Pool Channels	)	

TO: William F. Caton
Office of the Secretary
Federal Communications Commission
445 12th St., S.W.
Room TW- A325
Washington, D.C. 20554.

RESPONSE OF SKITRONICS, LLC, TO THE INITIAL REGULATORY FLEXIBILITY ANALYSIS CONTAINED IN APPENDIX TWO OF THE NOTICE OF PROPOSED RULE MAKING, WT DOCKET NO. 02-55

Skitronics, LLC, hereby files its specific comment to the Initial Regulatory Flexibility Analysis (IRFA) contained in the Federal Communications Commission's (Commission) *Notice of Proposed Rule Making* (*NPRM*)[1] in the above captioned matter as requested in Paragraph 94 of said *NPRM.*

I.
INTRODUCTION AND BACKGROUND.

[1] In the Matter of Improving Public Safety Communications in the 800 MHz Band Consolidating the 900 MHz Industrial/Land Transportation and Business Pool Channels, *Notice of Proposed Rule Making,* WT Docket No. 02-55, March 14, 2002.

Skitronics, LLC, is a small business as that term is defined in the Commission's IRFA in this matter. Skitronics, LLC, owns, and for the past eight years has operated, various specialized mobile radio systems in North Carolina and South Carolina.[2] Skitronics' services are not marketed to the general public as a telephone service or as an alternative to, substitute for, or competitor with cellular or cellular like telephone services. Skitronics operates 800 MHz systems exclusively.

Skitronics, LLC, serves a wide range of customers on its 800 Mhz systems – most them small businesses. Customers served represent the full spectrum of small business from volunteer fire departments, waste management companies, security firms, utility pipeline companies, engineering companies and medical transport to farmers, hotels, food delivery, taxies, trucking companies and newspapers. A total in excess of 6000 subscriber units are used in North and South Carolina by customers of Skitronics, LLC.[3] All of these end-users would be affected by any re-banding of the 800 MHz band or relocation of present 800 MHz band incumbents. The practical effect of such action, as discussed below, would be the effective elimination of a communications alternative to the customers of companies such as Skitronics by the eradication of hundreds of small businesses presently involved in the provision of SMR services on the 800 MHz band. At root, the *Nextel Proposal*[4] is an attempt by Nextel to eliminate all of its remaining competition it in the area

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[2]Skitronics also owns EA licenses in the 800 MHz band in West Virginia that have not yet been developed. See below.

[3] Skitronics is in the process of developing and building out recently acquired licenses in West Virginia. Skitronics was successful in obtaining EA licenses for portions of West Virginia in Auction 36. In view of the uncertainty of that spectrum being available for any period of time to allow recovery of the capital costs of the development due to this *NPRM*, it is the opinion of this company that the FCC should suspend build out requirements on these and other 800 MHz licenses that were the subject of auctions 34 and 36 until such time as the spectrum relocation issues are finally decided. It should be noted that Skitronics was in process of planning an 800 MHz radio system in West Virginia that would have provided near state-wide coverage for SMR users. That planning will not go forward at this point based on the uncertainty of the spectrum being ultimately available to the company.

[4] The *Nextel Proposal* is a reference to Promoting Public Safety Communications – Realigning the 800 MHz Land Mobile Radio Band to Rectify Commercial Mobile Radio - Public Safety Interference and Allocate

of dispatch radio services while stealing billions in spectrum.

Additional Spectrum to Meet Critical Public Safety Needs, Nov. 21, 2001.

The Commission has requested specific comments in regard to the IRFA analysis attached to the *NPRM*. The Regulatory Flexibility Act[5] (RFA), requires the Commission to prepare an Initial Regulatory Flexibility Analysis (IRFA) of the possible significant economic impact on small entities of the policies and rules proposed in the *NPRM*. The Commission has issued such a document as Appendix 2 of the *NPRM*. Our opinion, as developed in the following discussion, is that the Commission has, so far, totally disregarded small business in its consideration of the issues presented in the *NPRM* and has not at all considered the severe economic impact on small businesses that would entail from adoption of the policy and rules contemplated in the *NPRM*.

The Commission indicates that it has considered two "significant alternatives" in reaching the approach it has proposed in the *NPRM*.: 1) allowing small business licensees to remain on public safety channels on a secondary basis or 2) relocating licensees within the 800 MHz band.[6] As discussed below neither of these "alternatives" presents the effected small businesses with any option other than stagnation and slow death or immediate business failure. The real legal alternative was not even considered by the Commission: enforcing its existing rules against Nextel to require the use of technical solutions to specific discrete instances of interference.

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[5] 5 U.S.C. § 601 *et seq*.

[6] *NPRM,* at p. 59.

We do not address what this proposal would do to small nonprofit or governmental entities although we suspect that the effect would not be good. We are primarily concerned with the effect of the proposal on businesses such as ours. We have six employees at this point – at the end, hopefully, of the post-September 11 business contraction. According to the *NPRM*, there are 1,099 other licensees who are small businesses such as we are. It is suggested that these licensees are primarily responsible for the provision of 800 MHz dispatch SMR to countless businesses and government entities across the width and breadth of this country. It is further suggested that most of these businesses would be forced out of business by any channel relocation scheme, including any scheme that relegates these licensees to secondary status on the 800 MHz band. We cannot be so presumptuous as to claim to speak for all such small business licensees. But we have been authorized to say by most of the small business SMR operators in our region that they join with us in the conclusion that any of the relocation schemes proposed would mean the end of their SMR dispatch radio business.[7]

II.
THE EFFECT OF NEXTEL'S RELOCATION SCHEME ON

[7] Specifically, the following businesses have authorized us to include them herein:

Sea Coast Communications, Inc.
Paul Holliday, Pres.
1027 So. Kerr Avenue
Wilmington, NC 28403

RF Concepts
James White
106 Aurora Lane
Huntersville, NC 28078

Waccamaw Wireless, LLC
Darrell Doyle, Manager
PO Box 1301
Conway, SC 27528

RCS Communications Group
Donald L. Shipton
800 Megahertz Drive
Winston Salem, NC 27107

Southern Communications, LLC
Allen Smith, Manager
3269 US 70 West
Goldsboro, NC 27530

SMALL BUSINESS OPERATIONS

As noted previously, we cannot be certain that we speak for all small businesses involved in SMR operations. Neither are we economists or specialized business analysts capable of actually conducting an analysis of the impact of the proposed rule changes on the whole industry. We are, however, a fairly typical small SMR business and we can tell you how these proposals will effect us.

A. EFFECT OF RELOCATION TO EITHER THE 700 MHZ OR 900 MHZ BAND.

Should the Commission decide to move present 800 MHz SMR operators to either the 700 MHz or 900 MHz bands, and require the moving SMR operator to pay the costs of such relocation, then this company will, effectively, be driven out of business. There are several obvious problems with both the 700 MHz and 900 MHz bands that have been noted in many comments as well as the *NPRM*. Most obvious among those are the fact that there is very little equipment presently available for SMR operations on the 900 MHz band and what there is, is very expensive. The second obvious problem that has already been recognized and will not be addressed here in great detail is the fact that the proposed substitute spectrum is presently occupied and is not available for reassignment. It is not known when or if such spectrum will become available. The third obvious problem regards the fact that bandwidth in the 900 MHz channels is only half that of the bandwidth in 800 MHz channels. Consequently, a one for one license swap in these channels would not be a true like kind exchange. Present 800 MHz licensees would lose half of their present bandwidth.

This company regards its present bandwidth as its most valuable asset. Although the company is presently engaged only in traditional SMR dispatch services, it is constantly exploring other possible uses of the licensed spectrum available to it. A channel for channel swap into th e900

MHz band would effectively reduce the company's most valuable asset by half and severely restrict potential alternate uses to which the bandwidth might be dedicated by future business and technological development. For example, this company is currently offering AVL services to its costumers that need fleet tracking. It is also exploring data transmission and other options for future development. At present, our channels in the Raleigh, North Carolina, area are operating at nearly full capacity. All the bandwidth we have is necessary to present and future operations.

The final practical difficulty related to band relocation is that relocating the licenses of the thousand plus SMR small business operators to a band which is not shared with a one or more of the major wireless carriers severely deflates the value of the spectrum. We have an unusual situation here. Nextel, over the course of the past ten years has driven up the price of spectrum in the 800 MHz band. In addition to dominating the auctions, Nextel has vigorously pursued spectrum by buying and eliminating competitors and/or their licenses. In spite of this, a little over a thousand operators have managed to survive and compete with this Goliath. In some cases these companies have survived by providing services in areas where Nextel does not operate.[8] In most cases, however, these small businesses have survived by providing better services suited to their customers' needs at prices better than those offered by Nextel. This company competes directly with Nextel in most areas where we provide dispatch services. When Nextel initially debuted their product in our area, we lost customers. We are now recovering the costumers we lost and expanding our business. Now that Nextel has realized that it cannot succeed in eliminating competition by buying their remaining small business competitors, they are attempting to destroy the competition by depriving us of the value of the primary asset we hold: our spectrum licenses. The truly galling thing about this tactic is that we acquired the spectrum licenses at prices inflated by Nextel. Now

[8]See, e.g., comments of Western Communications, Inc., WT Docket No. 02-55, April 29, 2002.

Nextel proposes stealing billions of dollars worth of spectrum for itself at 2.1 Ghz while leaving the remaining small business operators with spectrum which no longer has any interested purchasers of any consequence because there would be no major wireless carrier operating in the band and/or because of restrictions placed on the remaining licenses.

This company has few hard assets. It's primary asset is its spectrum licenses. The value of that asset is market determined. Nextel's proposal effectively destroys the market for the asset by removing all liquid players from the market. Nextel, having been frustrated in their attempts to acquire the remaining spectrum at 800 MHz and eliminate the last vestiges of competition, have created a problem (public safety interference) by their sloppy engineering and are attempting to use that problem to achieve what they have not been able to do legitimately: destroy their last remaining competitors and steal the value of their spectrum – if not the spectrum itself.[9]

It is our best estimate that a transition of all of this company's operations to the 900 MHz band would cost between seven and ten million dollars ($7,000,000.00 to $10,000,000.00).[10] Similar assumptions are not possible in regard to the 700 Mhz band because there is only one manufacturer at present developing equipment for this band. Consequently, it is almost impossible to estimate the cost of transition to 700 MHz. History indicates that the introduction of new equipment on newly opened bandwidth is usually much higher than comparable equipment on existing used bands. The multiplier may be as much as double existing prices. If this holds true in regard to the 700 MHz band, we would expect our transition costs to be, at a minimum, double the

[9] It is likely that in the event the Commission mandates relocation, most SMR small business operators will be forced out of business. It is likely, in that event, that their spectrum may be reauctioned. Would we be surprised if Nextel ends up with that spectrum – our spectrum – at bargain basement auction prices because we will no longer be around to bid against them?

[10] This cost estimation is based upon the assumption that prices for 900 MHz equipment remains available at present prices during the transition period and that the increase in demand from such mandated transition does not drive the prices up – an assumption that may not be reasonable under the circumstances.

cost of transition to 900 MHz. Neither option is within the realm of possibility. This company has regularly been denied lines of credit in the six figure area by banks. The idea that this small business can raise the type of sums necessary to transition its operations to a new band is ridiculous. The Commission should be aware that if it adopts a band relocation scheme such as that advanced by the *Nextel Proposal,* it will, in effect, be terminating the existence of most small businesses presently involved in SMR operations.

This company is a privately owned, small, entrepreneurial business. In practical terms that means that the company operates on the margin. The company operates in a niche market and has been successful in that market in that it has survived for eight years and is still providing quality service to an expanding loyal customer base. The niche is 800 MHz dispatch. The competition is Nextel. The company has been successful because it offers better dispatch service than Nextel at a lower price in the areas where we have licenses. But the company operates out of cash flow. It has no real assets other than its channels and its built out systems – most of which have been amortized and had little resale value prior to the Commissions issuance of this *NPRM* and no resale value at all should the channel relocation scheme be adopted by the Commission.

The practical implication of this state of financial affairs is that requiring this company to pay the costs of relocation would be the same as putting the company out of business. The company relies on cash flow to maintain its present systems. Excess cash flow has historically been used to finance the acquisition of additional licenses and the build out of those licenses. There is simply no money available to finance the tremendous cost of building out replacement channels in either the 700 MHz or 900 MHz bands. Even if the present 800 MHz operations were not maintained during any transition period, the amounts presently generated by the present operations is not sufficient to pay the estimated cost of a 700 or 900 MHz build out. And that is without taking into consideration

the fact that diverting funds from maintenance of present operations to the build out of new channels in replacement bands would necessarily result in a decrease in revenues from the non-maintained present operations.

Finally, it should be noted that this comes at an economically inopportune time. This country has suffered the business trauma induced not just by the recent recession but also by the fallout from the September 11, 2001, terrorist attacks. Over the course of the past year, this company has laid off close to half its workforce. The *NPRM* came as it appeared that the economy was beginning to recover and the company's cash flow indicated that we might be in a position to again expand operations and workforce. These plans have been stymied by the uncertainty created by the *NPRM*. Disruption of business has already began and it is significant. Promulgation of the plan would go far beyond disruption: it would destroy our business. We suspect that it would also be the death-knell for the whole segment of American small businesses providing SMR services.

B. EFFECT OF REMAINING ON 800 MHZ BAND WITH SECONDARY STATUS.

The *Nextel Proposal* suggests that present 800 MHz operators might be allowed to remain in the 800 MHz band on a secondary basis as an alternative to moving. The Commission, in its IRFA, suggest that there consideration of this proposal constitutes the consideration of a significant alternative to the major impact that channel relocation would have on American small business.[11] We do not consider this to be a real alternative. There are several reasons why this is not a viable

[11] Please note that this impact would not only be on small businesses directly involved in SMR operations. It would also have a significant impact on the small businesses that utilize the SMR services provided. At best, destruction of the existing SMR dispatch services would leave those small businesses subject to the inferior service and monoply pricing of Nextel. We do not believe that the Commission's IRFA considers the possible impact of the action they contemplate on small businesses that use SMR services. A complete IRFA should address those issues.

option.

Relegating present 800 MHz SMR licenses to secondary status has serious implications for our business planning. It, in effect, terminates any plans for growth or expansion of the business as well as presenting serious challenges to continuing current successful business operations. It is not surprising that Nextel would make such an alternative proposal when you consider the anti-competitive heart of the *Nextel Proposal*. This "alternative" in effect says, "OK, if you can't afford the high price to move, stay where you are but the price you pay to do so is to give up any possibility of future business growth or improvement."

Secondary status makes our ability to use a licensed channel subject to divestment at any time. Given that we do not know how long any channel is going to be available to us, we cannot justify the expense of the capital investment necessary to make such channels operable or even to maintain them at peak operating efficiency. In addition, we are in a very competitive sales environment. We have to be able to promise reliable, *continuous* service to our customers. One of our primary selling points is that our systems have never been off the air for more than 24 hours no matter what the condition – even Hurricane Floyd. We cannot exist if we cannot deliver consistent, continuous, reliable quality service on dedicated clean channels. Without mutually exclusive channels we have no business.

C. EFFECT OF RELOCATION TO THE 2.1 GHZ BAND.

Nextel is making a naked attempt to steal nationwide spectrum in the 2.1 GHZ band. In its *NPRM*, the Commission raises the possibility that 800 MHz incumbents in addition to Nextel, might be moved to the 2.1 GHz band. At first blush this may seem like a more equitable solution to the problem than relocation of 800 MHz incumbents other than Nextel to the 700 MHz or 900 MHz

band or relegating them to secondary status on the 800 Mhz band. If the 2.1 GHz band relocation is done in a manner so as to create a geographical distribution of channels similar to that existing presently at the relevant 800 MHz frequencies, then it would seem that most parties would be in substantially the same position in which they are presently found.[12] One major concern of this company – the destruction of spectrum value – is ameliorated by this solution.

The equitable attraction of this possibility is, however, only superficial. Upon closer inspection the alternative is a non-starter. As with the 700 MHz and 900 MHz proposal, there are severe practical difficulties involved in relocation of 800 MHz incumbents to the 2.1 GHz band. Even worse than the other two bands proposed, there is no equipment available for SMR operations on this band. While we can assume that Motorola would provide equipment for Nextel's cellular type operations should it move to the 2.1 GHz band, where are the manufacturers who might develop all the repeaters, converters, antennas, subscriber units and other equipment that would be necessary for the SMR operators.[13]

An overwhelming problem becomes apparent when we consider the spectrum propagation characteristics at 2.1 Ghz. In the applications we use in environments where we operate we estimate that we will be able to operate at 2.1 Ghz at approximately one-third (1/3) of the efficiency with which we operate at 800 MHz. We presently use high tower sites for our 800 MHz dispatching service and routinely obtain acceptable coverage in an area covering a 113 kilometer radius of our tower site. We estimate that coverage would be reduced to 15 to 20 miles or less at 2.1 GHz due to

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[12]This, of course, disregards the position of any present users of the 2.1 GHz spectrum who are, apparently, left out in the cold by the *Nextel Proposal*.

[13]Consider the economics of the situation. There are only 1,100 business who might be using this equipment. (*NPRM,* Appendix 2, at p. 58.) Where is the opportunity for the manufacturer to recoup even the development costs of researching, designing and engineering equipment for this limited market?

the propagation characteristics of the band.[14] Consequently, it would be necessary for us to more than triple our tower sites, with the attendant capital expenditures, in order to merely maintain our present coverage footprint.

The 2.1 GHz band is, by its propagation characteristics, eminently suitable for a cellular application. It is not, however, a good channel for SMR operations. Spectrum characteristics would result in a tripling of our overhead and capital expenses. That simply is not a viable option for businesses that operate at the margin. The tradeoff might be acceptable if there was a clear path of business development available to small businesses for a practical use of the spectrum for something other than dispatch or other land mobile radio services. However, even if there were such an option, forcing the present 800 MHz incumbents to take that path would leave tens of thousands of businesses that presently rely on 800 MHz SMR in their day to day operations without any radio service – or at least without any viable alternative to Nextel.

There is only one way to make the costs of a relocation to 700 MHz or 900 MHz appear reasonable: consider the costs of moving to 2.1 GHz. Given the uncertainties involved in that spectrum and the spectrum propagation limitations, we estimate that it would cost us, at a minimum, four times as much to move to the 2.1 GHz band as it would to move to the 900 MHz band. In other words, somewhere between twenty-eight and forty million dollars. Needless to say, such financing is only available to us in our wildest dreams, and not even there in our sober moments. Multipy this by 1100 (the number of small businesses effected) and, maybe, the government would consider providing unsecured financing in this range to keep a presently viable sector of the small business economy running. We know of no other potential investors who would be interested.

[14]Please note that this is assuming that equipment developed is as efficient as present equipment available for use at 800 MHz – an assumption by no means certain given the amount of time that has gone into development of 800 MHz equipment, the fact that the 2.1 GHz equipment will be first generation models and given that the manufacturers do not have a compelling economic incentive to compete to develop this equipment.

III.
THE EFFECT OF NAM/MRFAC REBANDING SCHEME ON SMALL BUSINESS OPERATIONS

The Commission has also taken into consideration a proposed rebanding alternative advanced

by NAM/MRFAC. [15] The proposal creates three separate channel blocks: one for public safety; one for conventional SMR, Business and Industrial/Land Transportation systems; and one for "cellular architecture" systems. "Conventional SMR" is not defined by the *NAM Proposal.*[16] The term is, however, defined by the Commission in the *NPRM* as "SMR stations that do not employ digital cellular architecture configurations."[17] Neither the *NAM Proposal* nor the *NPRM* define "cellular architecture systems." It is presumed for purposes of this discussion that a "cellular architecture system" is one that employs channel reuse on low-tower close proximity sectored-sites.

The impact of this proposal on this business is hard to analyze due to the fact that the proposal is rather underdeveloped. It is not clear, for example, whether the proposal is calling for a ban on all digital development in the proposed conventional SMR, Business and Industrial/Land Transportation band or only a ban of "cellular architecture systems."

Under the definitions of "cellular architecture systems" and "conventional SMR" discussed above, it is not certain how the licenses this company holds would be handled. The company operates one Comspace® digital system. The equipment is digital but it is operated on a convential

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[15] Letter of December 21, 2001, to Michael Powell, Chairman, Federal Communications Commission, from Jerry Jasinowski, President, National Association of Manufacturers and Clyde Morrow, Sr., President MRFAC, Inc. (*Nam Proposal).*

[16] *Id.*

[17] *NPRM, at p.12, note 36.*

SMR type basis to provide dispatch service from high-tower sites without channel reuse. That system, while it is digital, is not, in our opinion, a cellular architecture. We are not clear, however, how the Commission would classify the system. Would the channels this licensee holds on which it uses this digital system be placed in the conventional SMR, Business and Industrial/Land Transportation band or in the cellular architecture systems band? Similarly, the company has been considering deploying ESAS systems with FSK digital protocols on some of its licensed bandwidth. Again, it is not clear how such a system/channel would be regarded by the Commission under the *NAM Proposal.* Would changing the type of equipment that we used on a channel require us to reband the channel? What if we converted more channels in the conventional SMR, Business and Industrial/Land Transportation band to a digital system, would we, in effect, be abandoning the channel by causing it to be reclassified and moved to the cellular architecture band?

The development of digital alternatives is essential to the survival of our business. Our channels if the Raleigh, North Carolina, area are, for example, at or near maximum loading capacity using analog equipment. Additional spectrum is not available in this area at anything approaching a price we can afford. Consequently, it is necessary for us to explore digital solutions that allow us to expand the number of voice (or data) paths available per channel.

If the *NAM Proposal* means that our channels would be rebanded to the conventional SMR, Business and Industrial/Land Transportation band and we would be prohibited from employing any digital systems in that band, then the future of this company would be placed in doubt. The first problem would be the elimination of any possibility of growth or innovation in our major markets. A second problem from this possible interpretation of the *NAM Proposal* is that the value of spectrum held by the company would be destroyed for reasons similar to those discussed above in regard to Nextel's relocation proposal.

On the other hand, if this company's channels are reassigned into the cellular architecture systems band they will, presumably, retain much of the economic value that they presently have. However, they may not be usable for the present applications (high-tower SMR dispatch) due to the interference that can be expected to dominate the band from Nextel's operations unless, as part of the rebanding, Nextel is required to clean up their engineering.

IV.
OPTIONS NOT CONSIDERED

We think that it should be noted that the Commission, to date, has apparently not given any consideration whatsoever to the possibility of enforcing their rules against Nextel – or anyone else causing interference for that matter – as a way to deal with the problem without decimating small businesses. They have also not considered the most rational proposal so far presented to them in regard to this problem. That proposal is found in *Promoting Public Safety Communications: Stopping Commercial Mobile Radio Service Interference to Adjacent Channel Licensees,* Dennis C. Brown, December, 17, 2001. We believe that this document which was filed with the Commission is part of the record herein so we will not reiterate the proposal contained therein at length.[18] Suffice it to say at this point that Mr. Brown's free market approach to this problem is the only solution proposed to date that approaches a win-win type of situation. It is also the only alternative offered to date that allows small businesses the possibility of continued profitable operation.

V.
CONCLUSION

[18]This assumption is based on *NPRM*, at p. 26, note 117.

If the Commission goes forward with channel relocation it may or may not cure the interference problems. It will decimate small business. On the other hand, if the Commission goes forward with a plan that requires the interference to be corrected on a case by case basis, it is possible that the problem can be eliminated while promoting small businesses and competition. Should such an approach not bear fruit within a reasonable period of time, then the Commission always has the option to return to the possibility of relocating channels. On the other hand, if the relocation scheme is carried forward the chances are very good that it will generate a thousand small business failures. And it may well not correct the problem. The option of preserving small business, competition and a technical fix would then no longer be available to the Commission. Reason, equity and, yes I will be so bold as to say it, even justice, requires the Commission to move deliberately and carefully in this matter so as to preserve the chance for small businesses to continue to be in business. It requires that more research into the nature and extent of the problem be conducted, and that reasonable attempts be made to correct the problem with available technology, before anything so drastic and irrevocable as channel relocation be undertaken.

Respectfully submitted,

Skitronics, Inc.

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